REMARKS

Claims 1 and 3-8 are currently pending in this application, with claims 1 and 3 being in independent form. The pending claims stand rejected under 35 U.S.C. § 112, second paragraph, and/or 35 U.S.C. § 103. Additionally, the Examiner has objected to claim 6 and the specification. In view of the amendments to the claims and remarks below, Applicants respectfully request that the rejection be reconsidered and withdrawn.

35 U.S.C. § 112, SECOND PARAGRAPH

Claim 5 stand rejected as indefinite under 35 U.S.C. § 112, second paragraph, because it recites "... introduced into the host strain E. coli (DE 3) by culturing ...." Applicants have amended this claim to recites "introduced into the host strain E. coli BL-21 (DE 3) thereby forming a transformed host strain and wherein the transformed host strain is cultured ...." Accordingly, withdrawal of this rejection is respectfully requested.

35 U.S.C. § 103

Claims 1 and 3-8 have been rejected under 35 U.S.C. § 103 as being obvious over Raychaudhuri[1] in view of Yoshida[2]. Raychaudhuri broadly discloses the preparation of chloroplast and cytosolic fractions that exhibit inositol synthase activity in the fractions. However, Raychaudhuri does not teach or suggest any sequence for *P. coarctata* myo-inositol 1-phosphate synthase. It does not disclose or suggest any biochemical or physical properties of *P. coaractata* myo-inositol 1-phosphate synthase that would be useful to determine the recited sequence.

Claim 1 is directed toward an isolated nucleic acid molecule for a salt-tolerant L-myo-inositol 1-phosphate synthase from *Porteresia coarctata* (PcINO1) comprising the nucleic acid sequence of SEQ ID NO. 1, or a nucleic sequence encoding a protein comprising SEQ ID NO. 3.

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[1] Raychaydhuri *et al.* "Salinity-induced enhancement of L-myo-inositol 1-phosphate synthase in rice (*Oryza sativa* L.)" PLANT, CELL AND ENVIRON. (1996) 19: 1437-1442 ("Raychaydhuri").

[2] Yoshida *et al.* "Temporal and spatial patterns of accumulation of the transcript of *myo*-inositol 1-phosphate synthase and phytin-containing particles during deed development in rice," PLANT PHYS. (1999) 119:65-72 ("Yoshida").

Thus, in order for references to teach or suggest the sequences recited in claim 1, the references must teach or suggest the sequence. Here, Raychaudhuri fails to teach the recited sequence.

Raychaudhuri does not teach or suggest the protein sequence for *P. coarctata* L-myo-inositol 1-phosphate synthase. Raychaudhuri only teaches that *O. sativa* has enhanced activity of chloroplast form of L-myo-inositol 1-phosphate synthase under salt treatment that are comparable to highly salt-tolerant varieties of *P.coarctata*. At best, Raychaudhuri connects L-myo-inositol 1-phosphate synthase to salt tolerance. However, it fails to provide any characterization of the sequence or structure of L-myo-inositol 1-phosphate synthase from *P.coarctata*. Without such information, one of ordinary skill would not be able to isolate the recited sequences.

Yoshida does not overcome this deficiency because one would not reasonably expect to apply the methods used in Yoshida to isolate the *O. sativa* myo-inostiol 1-phosphate synthase in *P. coarctata*. In order to implement Yoshida's method in *P. coarcata*, one would require some knowledge of the *P. coarctata* gene sequence in order to amplify, isolate and sequence the *P. coarctata* myo-inositol 1-phosphate synthase gene. Since the myo-inositol 1-phosphate synthase gene varies between the two species Yoshida's method cannot be predictably used to amplify the *P. coarctata* myo-inositol 1-phosphate synthase gene.

Claim 3 is directed toward a process of obtaining cDNA encoding a salt-tolerant L-myo-inositol 1-phosphate synthase including: (i) isolation of a full-length cDNA for the L-myo-inositol 1-phosphate synthase gene from the leaf of *Porteresia coarctata* by reverse transcription followed by polymerase chain reaction; and (ii) sequencing of the isolated L-myo-inositol 1-phosphate synthase gene, wherein the sequenced synthase from *Porteresia coarctata* (PcINO1) is encoded by a nucleotide sequence SEQ ID NO. 1 and has a deduced amino acid sequence SEQ ID NO. 3. As discussed above, in order to practice this method, one of ordinary skill would require some knowledge of the *P. coarctata* gene sequence. This necessary information is not provided or suggested in any of the cited references.

Claims 4-8 depend directly or indirectly from and further limit claims 1 or 3 and are patentable for at least the aforementioned reasons.

OBJECTION TO CLAIM 6

Claim 6 has been objected to for reciting "PINO1." Applicants have adopted the Examiner's suggestion and amended this term to "PcINO1." Accordingly, withdrawal of this rejection is respectfully requested.

OBJECTION TO THE SPECIFICATION

The Examiner has requested that Applicants amend the specification to change "PINO1" to "PcINO1." Applicants have adopted this suggestion and submit a marked-up and clean version of the specification together with this Amendment.

CONCLUSION

In view of the foregoing amendments and remarks, it is respectfully submitted that currently pending claims 1 and 3-8 are in condition for allowance. Reconsideration and withdrawal of the rejections and allowance of claims 1 and 3-8 is respectfully requested. If there are any remaining issues to be resolved, Applicants request that the Examiner contact the undersigned attorney for a telephone interview.

Respectfully submitted,

THE WEBB LAW FIRM

By 

William H. Logsdon
Registration No. 22,132
Attorney for Applicants
436 Seventh Avenue
700 Koppers Building
Pittsburgh, PA 15219
Telephone: (412) 471-8815
Facsimile: (412) 471-4094
E-mail: webblaw@webblaw.com